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AUTHOR Schoenfeld, Clay
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ABSTRACT

Environmental communications (EC) display three aspects of import to journalism teachers and researchers: first, the EC research base is lean but growing; second, environmental communicators are widely dispersed among an EC ecosystem of varied components; and third, while the varied roots of EC precede the present decade by many years, environmental communications themselves seem to represent a new species for instruction and investigation. The varied components in which environmental communicators are employed today include the mass and specialized print, graphic, and electronic media; governmental resource management agencies; professional societies; citizen environmental organizations; resource industries; colleges and universities; libraries; and museums. The roots of EC include nature writing, outdoor recreation and travel writing, science writing, public affairs reporting, and persuasion. The common denominators of the various forms of EC include a hard core of ecological content, a recognition of worldwide problems of crisis proportions, a value system, and a concern for private and public action. (An appendix offers a digest of environmental publications including major focus and fees paid for articles.) (TJ)

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AN EDUCATOR'S PERSPECTIVE ON ENVIRONMENTAL COMMUNICATIONS TODAY

Clay Schoenfeld

Joint Professor of Journalism and Wildlife Ecology, and Chairman, Center for Environmental Communications and Education Studies, The University of Wisconsin-Madison.

Recently termed "a nascent discipline that is beginning to work in small yet significant ways (32)," environmental communications (EC) collectively constitute a phenomenon displaying three aspects of import to journalism teachers and researchers today: first, the EC research base is lean but growing; second, environmental communicators are widely dispersed among an EC "ecosystem" of varied components; and third, while the varied roots of EC precede the present decade by many years, EC themselves seem to represent a new "species" for instruction and investigation.

RESEARCH HORIZONS

EC have been said (23) to encompass the process of planning, producing, and disseminating, or conducting research related to written, spoken, or pictorial messages about the environment, environmental management, or environmental issues. Environmental communicators seek in various situations and ways to increase public awareness of environmental problems and public understanding of underlying principles, current issues, and remedial options. Some environmental communicators go on to encourage a public commitment to individual and collective action on behalf of environmental protection and enhancement (27).

While such a definition of EC may be accurate enough, its use can take on "the proportions of a mystique," Witt (41) says, and tend to divorce the study of EC "from the mainstream of general mass and interpersonal communications He suggests EC are better considered "simply the sum of those portions of the total information flow in the social system that have a common environmental cognitive content."

For whatever the reason, the EC research base is indeed lean, but it is growing. Perhaps few other aspects of communication "present so promising opportunities today for theory formulation and testing (36)." Grunig (3), Rubin (18), Sandman (20), Stamm (37), and Tichenor (39) are probably among the more exciting and prolific of EC scholars today. While environmental communications research per se to date is limited, scholars fortunately can draw on a rich background of research in a related field, that of rural sociology. Social psychologists associated with landgrant colleges of agriculture have long been interested in information flow affecting farm technology transfer, in public participation in resource use decision-making, and in the ecology of social movements. It was perhaps only natural,

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then, that they have built up in recent years a significant body of literature on Social Behavior, Natural Resources, and the Environment, that being the title of a representative collection of papers edited by Burch, Cheek, and Taylor (1). Such sociologists even have their own spin-off society.

Besides their traditional channels of publication, EC scholars now have two relatively new "custom" journals, Environment and Behavior and The Journal of Environmental Education, both of which are open to reports of research at the physical environment-communication-human behavior interface.

THE E.C. ECOSYSTEM

A pragmatic way to get a handle, so to speak, on EC is to ask the question, "In today's society, where and how are environmental communicators employed?"

What might be termed the EC "ecosystem" (24) includes the mass and specialized print, graphic, and electronic media; government resource management agencies at federal, state, and local echelons; professional societies; citizen environmental organizations, veteran and new; the resource industries and associated labor organizations; colleges and universities, particularly their extension arms, their schools of natural resources or engineering, and their environmental studies centers; and such educational instrumentalities as nature centers, libraries, and museums. In each of these components are to be found today persons specializing in EC however the term is variously defined (13).

For example, of the 60 graduates of the master's degree programs in EC at The University of Wisconsin-Madison in the past 10 years, 7 are now with the media, 12 with government resource agencies, 2 with professional societies, 5 with conservation organizations, 3 with resource industries, 15 with colleges and universities, and 16 in various specialized forms of environmental interpretation, or out of the field (34, 35).

The varied situations in which environmental communicators may be employed, and their concommitant varied perspectives on the field say something to journalism educators: that EC are not the province of any one division or sequence within a school of journalism, or even of the school itself. Students who become environmental communicators may be products of news-editorial, radio-TV, magazine, public relations, theory-methodology, any of several other journalism "tracks," or of resource management programs. Even the now-ubiquitous advanced course in science-environmental writing cannot assume its products will enter only the mass media; many will go directly to public information positions, as the data suggest. While the macro-environment of the environmental reporter for a daily newspaper may not differ from that of the public affairs director of a state bureau of environmental protection, the micro-environment certainly does. For example, while antiseptic objectivity may be the sine qua non of the reporter, the public affairs person is frequently called upon to engage in evangelism (18).

THE ROOTS OF E.C.

Another way to approach EC is to ask the question, "What are the antecedents of EC?"

EC did not spring to full flower overnight on Earth-Day, 22 April, 1970. Their roots are old and varied: nature writing; outdoor recreation and travel writing; science writing, to include medical and agricultural journalism; public affairs reporting; and the modes and methods of persuasion. While the distinctions among at least some of these genre may be more apparent than real, and while hybrid forms of EC may be more common today than "pure" forms, it is instructive to review the EC family tree.

(Do these suggested roots of EC really represent distinct "species," as it were, or are they merely semantic inventions? Put another way, are there criteria we can use to assess the discreteness of any particular type of communications? Four suggest themselves: (1) Are there media or portions of media exclusively devoted to the area? (2) Is the area recognized in guides to periodical literature, library card catalogs, or bookstore shelves? (3) Do practitioners of the genre so identify themselves professionally? (4) Are there courses, textbooks, or research monographs on the subject-matter? To qualify as a "species," a form of communication should probably meet at least three such criteria. For example, nature writing meets 1, 2, and 4; outdoor recreation and travel writing, 1, 2, 3, and 4; science writing, 1, 2, 3, and 4; public affairs reporting, 1, 3, 4; and persuasion, 1, 2, 3, and 4. EC themselves meet 1, 2, 3, and 4.)

Nature Writing

While nature writing can be traced back at least to the Psalms, in its modern form American nature writing has taken its inspiration from the Lake Poets of England in the 17 and 18 hundreds, and especially from William Wordsworth (42). Perhaps in his "Lines Composed Above Tintern Abbey" he captured most succinctly the characteristics of nature writing: fascination with nature's vast, pulsing harmony, in and of itself and as a charmed, magic casement opening on universal truth as revealed through nature.

Few products of highschool literature courses are unfamiliar with at least some works of distinguished early American nature writers, 1830-1920: William Cullen Bryant, Thornton W. Burgess, John Burroughs, Ralph Waldo Emerson, David Grayson, John Muir, Henry David Thoreau, and Walt Whitman. Their more modern counterparts, while retaining a sense of awe, have informed their writings with a more sophisticated ecological understanding: Ansel Adams, Hal Borland, Rachel Carson, August Derleth, Loren Eiseley, Joseph Wood Krutch, Aldo Leopold, Sigurd Olson, Donald Culrose Peatty, Edwin Way Teale, and many others. For readers, if not for writers themselves, nature writing has also represented an escape from urban degradation, a nostalgia for the seemingly simple bucolic joys of a pre-industrial age (7). The market for nature writing--and nature photography--today is measurable. The magazines National Wildlife and Audubon, for example, are devoted pretty exclusively to the genre.

Russell (19) has developed a case study of the evolution of the nature magazine from an EC perspective, and her data are used by McEvoy (9) to document the rise of "the American concern with environment."

Outdoor Recreation and Travel Writing

While closely related to nature writing, outdoor recreation and travel writing have distinctive lineage and characteristics.

Writing under the penname Frank Forester, William Henry Herbert brought outdoor writing to America in the late 1830's. Appealing to devotees of hunting and fishing, he outlined the basics of sporting etiquette and lamented the commercial destruction of wildlife and habitat. With the appearance of national

periodicals like American Sportsman (1861), Forest and Stream (1873), and American Angler (1881), outdoor writers like George Bird Grinnell and Emerson Hough not only delineated the good life of the "sportsman" but played an active role in early movements to conserve wildlife, forests, and parks (17). Today the genre is represented by the outdoor writer on the sports pages of practically every daily newspaper and by the "big three" outdoor magazines, Field and Stream, Sports Afield, and Outdoor Life. Other

writers and other publications specialize in other forms of outdoor recreation, from golf to backpacking.

It was travel writers who lured our ancestors to America. Beginning at least with Michel Guillaume St. Jean de Crevecoeur in 1782, educated visitors from Europe sent back ecstatic essays about the New World. In the 1830's as large numbers of Americans themselves began to explore their own country, either for recreation or for homesteading, travel writing flourished. Typically one part nature writing, one part tour guide, and one part hard sell, travel writing was the plow that broke the plains, projected us to the Pacific, and laid the groundwork for early conservation successes; John Wesley Powell's scientific reports from beyond the hundredth meridian, for example, and the dispatches of a young Army lieutenant that finally lent credibilty to stories about the wonders of Yellowstone (1). Today, of course, travel writing continues to be big business, and in the case of National Geographic, at least, it frequently has an ecological caste.

Reiger (17) has recently pieced together the interplay of outdoor writers and the origins of environmentalism, and Huth (7) is the standard reference on the role of travel writers in introducing Americans to their first awareness of the country's ecology.

Science Writing

Ben Franklin may well have been the first American science writer (38). His story of his "Electric Kite" was duly recorded in his Pennsylvania Gazette in 1752. Scientific American first appeared in 1845, Science Magazine in 1883, the American Chemical Society News Service in 1919. In 1921 David Dietz became a newspaper science writer for Scripps Howard, Watson Davis' column, "What's New in Science" previewed in the Washington Herald, and Science Service sent out its first news syndicate weekly release. In 1923 Alva Johnson won a Pulitzer Prize for reporting the final acceptance of Darwin's theory of evolution by the science community. The 1887 creation of agricultural experiment stations at landgrant universities had stimulated the development of "technology transfer" specialists in agriculture via multiplying farm journals, and the emergence of medicine as a science rather than a barber-pole art produce a whole range of health writers. By 1934 the National Association of Science Writers had "officialized" the genre. In 1945 William L. Laurence won a Pulitzer for his sensitive reporting of the first atomic blast. Scientists particularly concerned about nuclear proliferation organized a Scientists' Institute for Public Information in the late 1940's. In 1958 the SIPI fostered a Committee for Environmental Information, which now has its own journal, Environment. Environmental engineers communicate through Environmental Science and Technology. Some science writers today have become environmental or energy specialists (26, 28).

Despite progress, Larsen (8) says press coverage of the environmental sciences "falls far short of what could be considered adequate, considering the critical importance of an informed electorate on matters of significance to modern civilization."

Public Affairs Reporting

Public affairs reporting, of course, is as old as journalism, but at the turn of this century in America it took on striking proportions. Print technology and urbanization combined to produce the first truly national newspapers and magazines with massive circuluations, and their growing freedom from political patronage opened their columns to a cadre of scintillating investigative reporters, whom Teddy Roosevelt in a moment of pique labeled "the muckrakers" (14). Ida Tarbell on Standard Oil, Upton Sinclair on the meat packing "jungle," Lincoln Steffens on "the shame of the cities"--these and many others brought great visibility to brass-knuckles journalism and environmental issues. Robert Underwood Johnson, editor of Century, particularly lent muckraking a classic environmental flavor with his stories and editorials exposing the rape of forest and parklands (11). From that day to this, solid public affairs reporting has accompanied if not inspired every conservation crusade, from the long fight over the Tennessee Valley's Muscle Shoals to today's debates over a national energy policy (29).

The majority of the reporters plying the environmental beat on today's U.S. dailies have come from the ranks of public affairs reporters, diagnostic of the fact that the environmental story so frequently surfaces in courthouses, capitols, and judicial chambers. By surveying representative samples of such newspersons identified by their papers as environmental reporters, Griffin (5) and Holcomb (6) have recently shed significant light on this new or retreaded breed of journalist.

Persuasion

Persuasion, too, has a long history in America, dating at least from Thomas Paine's times that tried men's souls. But again it was at the turn of the century that persuasion and conservation made history in the person of Gifford Pinchot. Recognizing that "nothing permanent can be accomplished in this country unless it is backed by a sound public sentiment (16)", Pinchot made his embryo U.S. Forest Service in effect a public relations agency to sell "practical forestry" through devices "as varied and as sophisticated as any could have been without the availability of broadcast media (4)", climaxed by the first major "staged event" in American politics, President Roosevelt's celebrated 1908 White House Conference on Conservation. A more modern counterpart has been David Brower, who in 1954 put together a remarkable consortium of conservation groups whose collective voice actually caused Congress to halt a Colorado dam that would have inundated Dinosaur National Monument (12). Brower's use of economic statistics quite as much as esthetic sentiments set the tone for much of the rhetoric of the environmental decade beginning 10 years later (21).

For environmental persuaders of varied stripes, Grunig (3) has recently put together a fairly exhaustive "review of research on environmental public relations."

E.C. EMERGENCE

When did nature writing, outdoor writing, science writing, public affairs reporting, and persuasion merge into environmental communications?

Each root produced a flower stalk in the 1960's. Wallace Stegner's 1960 "The Wilderness Idea," a lyrical essay on America's last strands of naturalness and solitude, was one of many nature writings that helped generate support for the passage of the Wilderness Act in 1964 (33). While Aldo Leopold's Sand County Almanac had appeared originally in 1949, it was not until a 1966 paperback

edition received wide circulation that his "noble elegy for the American earth and a plea for a new land ethic" vaulted classic outdoor writing into the ken of millions (22). In 1962 another rather small paperback hit the bookstands of America with the impact of a blockbuster, authored by a former U.S. Fish and Wildlife Service editor-biologist. Quietly and calmly this premier example of science writing questioned the massive use of chemical pesticides. Rachel Carson's Silent Spring "probably did more to alert the American people to the critical needs of their environment and their own health than any form of journalism before or since (40)." The Rienows' Moment in the Sun in 1967 represented the searchlight of a team of public affairs reporters turned on the intrinsic beauty and the creeping degradation of the organism called America. Stewart Udall's The Quiet Crisis in 1963 was in the great tradition of the American politician turned persuader for "an ever-widening concept and higher ideal of conservation" (31). The 1969 National Environmental Policy Act, requiring environmental impact assessments on all major federally funded projects, created a new "hook" on which to hang environmental reporting, and vastly increased the quantity and quality of newspaper coverage of the environmental beat (23). The year 1969 also saw the emergence of a dozen specialized publications as custom carriers of EC. At latest count there are now 93 (10).

Irrespective of their roots, are there any common denominators among the various forms of EC? Yes (32). First, there is a hard core of ecological content. Second, a recognition of worldwide problems of crisis proportions. Third, a component of conscience, of a value system. Fourth, a concern for private and public action. The whole is focused on a comprehensive rather than a compartmentalized approach to the people-resources-technology system. A basic theme in EC hence is interdependence--that everything is connected to everything else. This is "the principal intuition of the 20th century" (15). The practical problem faced by all environmental communicators, of course, is how to recognize and describe sound, fair trade-offs among energy, economy, and environment (30). It is indeed the journalism of uncertainty (20).

Perhaps nothing so typifies the irruption in EC in recent years as the battery of magazines and newsletters that did not exist before 1968, coupled with a shift to a more environmental slant on the part of older publications in what used to be categorized as the "conservation" field. Together they constitute a promising market for the writings of journalism students. Colleagues at the University of Wisconsin-Madison recently completed a national survey of the environmental press. On the basis of what editors reported; the Appendix offers a digest of selected (1) environmental markets that are reasonably open to freelancers and that pay well, (2) environmental markets that usually pay, but modestly, and (3) prestigous environmental journals that use freelance materials but don't pay (25).

SUMMARY

While specialized environmental periodicals may constitute the most visible evidence of the arrival of EC as a distinctive aspect of information flow in American society, environmental communicators have found ecological niches, as it were, in a wide range of instrumentalities, within the media and without, devoted both to interpreting environmental issues to varied publics, and in interpreting public needs and aspirations to varied resource agencies. And while from one perspective EC may in fact be a new thing under the sun, from another perspective their varied roots go deep into the soil of American thought and social behavior. Hence, EC are a fruitful field for teaching, research, and outreach on the part of journalism educators today.

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APPENDIX

Environmental Markets

THE BIG FIVE

American Forests, 1319 18th Street NW, Washington, D.C. 20036. James Craig, Editor.

Major articles on conservation of all natural resources. Extensive color photography. Pays $100 to $300.

Audubon, 950 Third Avenue, New York, NY. 10022. Les Line, Editor.

Magazine not restricted to birds. Freelance articles and pictures accepted only occasionally. Queries preferred. Payment begins at $500. Buys transparencies.

National Wildlife, 534 N. Broadway, Milwaukee, WI. 53202. George H. Harrison, Managing Editor. (Now combined with International Wildlife)

Vital, active writing on U.S. environmental problems in general, as well as wildlife in particular. Query first. Payment usually begins at $500. Pre-fers packages of related photos and text.

Natural History, 79th and Central Park West, New York, NY. 10024. Alan Ternes, Editor.

Favors an ecological slant in most pieces, but does not lobby for causes. Prefers scientists or professional science writers. Pays $200 to $600 plus additional for photos.

Outdoor Life, 380 Madison Avenue, New York, NY. 10017. John Fry, Editor.

Articles of penetrating depth about national conservation, game management, and recreation development problems. Query first. Pays $250 minimum. Buys photos.

THE LITTLE SIX

Environment, Heldref Publications, 4000 Albermarle Street NW, Washington, D.C. 20016. Cornelius, W. Vahle, Jr., Publisher.

Special problems of technology in relation to the environment. Footnotes.

Environmental Affairs, Chestnut Hill, Massachusetts. 02135. Kevin Haight, Editor.

Legal, scientific, political, and economic developments bearing on the environment. Modest pay. No pix.

Environmental Education Report, 1621 Connecticut Avenue NW, Washington, D.C. 20009. Alison St. Clair, Managing Editor.

Grass roots to global information on trends, programs, and materials. Pays $35 to $40. No pix.

Limnos, 3750 Nixon Road, Ann Arbor, MI. 48105. Jacques LesStrang, Editor.

Ecological problems of the great lake of the world. Pays up to $150.

The Living Wilderness, 1901 Pennsylvania Avenue NW, Washington, D.C. 20006. James G. Deane, Editor.

Articles on wilderness conservation, environmental issues, natural history. Pays "according to character of material." Buys photos.

National Parks and Conservation Magazine, 1701 18th Street NW, Washington, D.C. 20009. Eugenia Horstman Connally, Editor.

Articles about national parks, stressing threats confronting them and programs to save them. Articles bring $75 to $100. Buys photos.

NINE FOR PRESTIGE

Biological Conservation, Abbots Ripton, Hunting, PE 17 2LS, England. Dr. Eric Duffey, OBE, Editor.

Conservation studies and ecological research applied to scientific management of natural resources. Footnotes.

Conservation News, 1412 16th Street NW, Washington, D.C. 20036. Rose Houk, Editor.

Environmental insult reports and environmental action case studies.

Environmental Action, 1346 Connecticut Avenue NE, Washington, D.C. 20036. Deborah Baldwin, and Gail Robinson, Editors.

Any environmental issue of national scope. Uses photos.

Environmental Comment, 1200 18th Street NW, Washington, D.C. 20036. Susan Kendall, Editor.

"Clearing house" for environmental information.

Journal of Soil and Water Conservation, 7515 NW Ankeny Road, Ankeny, Iowa. 50011. Max Schnepf, Editor.

Arts, sciences, and professions that deal with management of all renewable natural resources. Footnotes.

Natural Resources Journal, The University of New Mexico, Albuquerque, NM. 87131. Rand H. Greenfield and Joseph M. Holmes, Editors.

Definitive articles on the social sciences related to environmental management. Footnotes.

Not Man Apart, 529 Commercial Street, San Francisco, California. 94111. Tom Turner, Editor.

Environmental features that "ease the transition to a post-industrial era."

Parks and Recreation, 1601 North Kent Street, Arlington, VA. 22209. Charles B. Fowler, Editor.

Developments in the park, recreation, and conservation movements.

Western Wildlands, University of Montana, Missoula. 59801. Connie M. Bourassa, Editor.

Provocative articles on the management of the last frontier. Footnotes.